

Application No. 09/876,160
Amendment dated September 30, 2005
Reply to Office Action of June 2, 2005

Docket No.: 20402-00625-US
Page 2 of 11

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently amended) The microphone according to claim & 16, wherein the second amplification circuit includes drive means, in which a power supply to the drive means is configured so that the power is obtained as a constant current from outside the microphone via the output line connected to the microphone output terminal.

3. (Currently amended) The microphone according to claim & 16, wherein the second amplification circuit includes drive means, in which a power supply to the drive means is configured so that the power is temporarily obtained for storage through the output line connected to the microphone output terminal according to voltage values and the stored voltage is used when obtaining the power is stopped.

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Currently amended) The microphone according to claim & 16, wherein each of the first and second amplification circuit has an FET (field effect transistor) for the buffering amplification.

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

420123

Application No. 09/876,160
Amendment dated September 30, 2005
Reply to Office Action of June 2, 2005

Docket No.: 20402-00625-US
Page 3 of 11

13. (Canceled)

14. (New) A capacitor type of microphone having a microphone output terminal and a microphone common terminal, the microphone output terminal being connected to an output line through which a microphone signal is outputted, the microphone comprising:

a movable electrode vibrating in response to a sound vibration;

a fixed electrode arranged face to face with the movable electrode;

first amplification means for buffer-amplifying a terminal voltage generated between both the movable electrode and the fixed electrode;

second amplification means provided with an FET (field effect transistor) structured into a gate-common amplification circuit having a source electrode that receives an output current of the first amplification means and having a drain electrode that supplies an amplified current through the microphone output terminal and cascaded to an output terminal of the first amplification means between the microphone output terminal and the microphone common terminal connected to a gate terminal of the FET; and

a bypass capacitor electrically connected between the microphone output terminal and the microphone common terminal, the bypass capacitor operating to bypass a high frequency signal coming from outside the microphone through the microphone output member.

15. (New) A capacitor type of microphone having a microphone output terminal and a microphone common terminal, the microphone output terminal being connected to an output line through which a microphone signal is outputted, the microphone comprising:

a movable electrode vibrating in response to a sound vibration;

Application No. 09/876,160
Amendment dated September 30, 2005
Reply to Office Action of June 2, 2005

Docket No.: 20402-00625-US
Page 4 of 11

a fixed electrode arranged face to face with the movable electrode;

first amplification means for buffer-amplifying a terminal voltage generated between both the movable electrode and the fixed electrode;

second amplification means provided with a junction type of transistor structured into a base-common amplification circuit having an emitter that receives an output current of the first amplification means and having a collector that supplies an amplified current through the microphone output terminal and cascaded to an output terminal of the first amplification means between the microphone output terminal and the microphone common terminal connected to a base of the transistor, and

a bypass capacitor electrically connected between the microphone output terminal and the microphone common terminal, the bypass capacitor operating to bypass a high frequency signal coming from outside the microphone through the microphone output member.

16. (New) A capacitor type of microphone having a microphone output terminal and a microphone common terminal, the microphone output terminal being connected to an output line through which a microphone signal is outputted, the microphone comprising:

a movable electrode vibrating in response to a sound vibration;

a fixed electrode arranged face to face with the movable electrode;

a first amplification circuit for buffer-amplifying a terminal voltage generated between both the movable electrode and the fixed electrode;

a second amplification circuit provided with an FET (field effect transistor) structured into a gate-common amplification circuit having a source electrode that receives an output current of the first amplification circuit and having a drain electrode that supplies an amplified current through the microphone output terminal and cascaded to an output terminal of the buffer amplification means between the microphone output

Application No. 09/876,160
Amendment dated September 30, 2005
Reply to Office Action of June 2, 2005

Docket No.: 20402-00625-US
Page 5 of 11

terminal and the microphone common terminal connected to a gate terminal of the FET;
and

a bypass capacitor electrically connected between the microphone output terminal and the microphone common terminal, the bypass capacitor operating to bypass a high frequency signal coming from outside the microphone through the microphone output member.

17. (New) A capacitor type of microphone having a microphone output terminal and a microphone common terminal, the microphone output terminal being connected to an output line through which a microphone signal is outputted, the microphone comprising:

- a movable electrode vibrating in response to a sound vibration;
- a fixed electrode arranged face to face with the movable electrode;
- a first amplification circuit for buffer-amplifying a terminal voltage generated between both the movable electrode and the fixed electrode;

- a second amplification circuit provided with a junction type of transistor structured into a base-common amplification circuit having an emitter that receives an output current of the first amplification circuit and having a collector that supplies an amplified current through the microphone output terminal and cascaded to an output terminal of the buffer amplification means between the microphone output terminal and the microphone common terminal connected to a base of the transistor, and

- a bypass capacitor electrically connected between the microphone output terminal and the microphone common terminal, the bypass capacitor operating to bypass a high frequency signal coming from outside the microphone through the microphone output member.

Application No. 09/876,160
Amendment dated September 30, 2005
Reply to Office Action of June 2, 2005

Docket No.: 20402-00625-US
Page 6 of 11

18. (New) The microphone according to claim 14, further comprising a member for shielding the microphone from electromagnetic waves by surrounding the movable electrode, the fixed electrode, the first amplification means, and the second amplification means.

19. (New) The microphone according to claim 18, wherein the output line is located outside the shielding member.

20. (New) The microphone according to claim 15, further comprising a member for shielding the microphone from electromagnetic waves by surrounding the movable electrode, the fixed electrode, the first amplification means, and the second amplification means.

21. (New) The microphone according to claim 16, further comprising a member for shielding the microphone from electromagnetic waves by surrounding the movable electrode, the fixed electrode, the first amplification circuit, and the second amplification circuit.

22. (New) The microphone according to claim 21, wherein the output line is located outside the shielding member.

23. (New) The microphone according to claim 17, further comprising a member for shielding the microphone from electromagnetic waves by surrounding the movable electrode, the fixed electrode, the first amplification circuit, and the second amplification circuit.

420123

Application No. 09/876,160
Amendment dated September 30, 2005
Reply to Office Action of June 2, 2005

Docket No.: 20402-00625-US
Page 7 of 11

24. (New) The microphone according to claim 16, further comprising a decoupling capacitor electrically connected between an output side of the output line and the microphone common terminal, the decoupling capacitor reducing an RF signal impinging onto the output line.

25. (New) The microphone according to claim 16, further comprising a power supply electrically connected between an output side of the output line and the microphone common terminal, the decoupling capacitor reducing an RF signal impinging onto the output line.